

People Are More Likely to Use Classification Rules When Features Are Easy to Describe Verbally

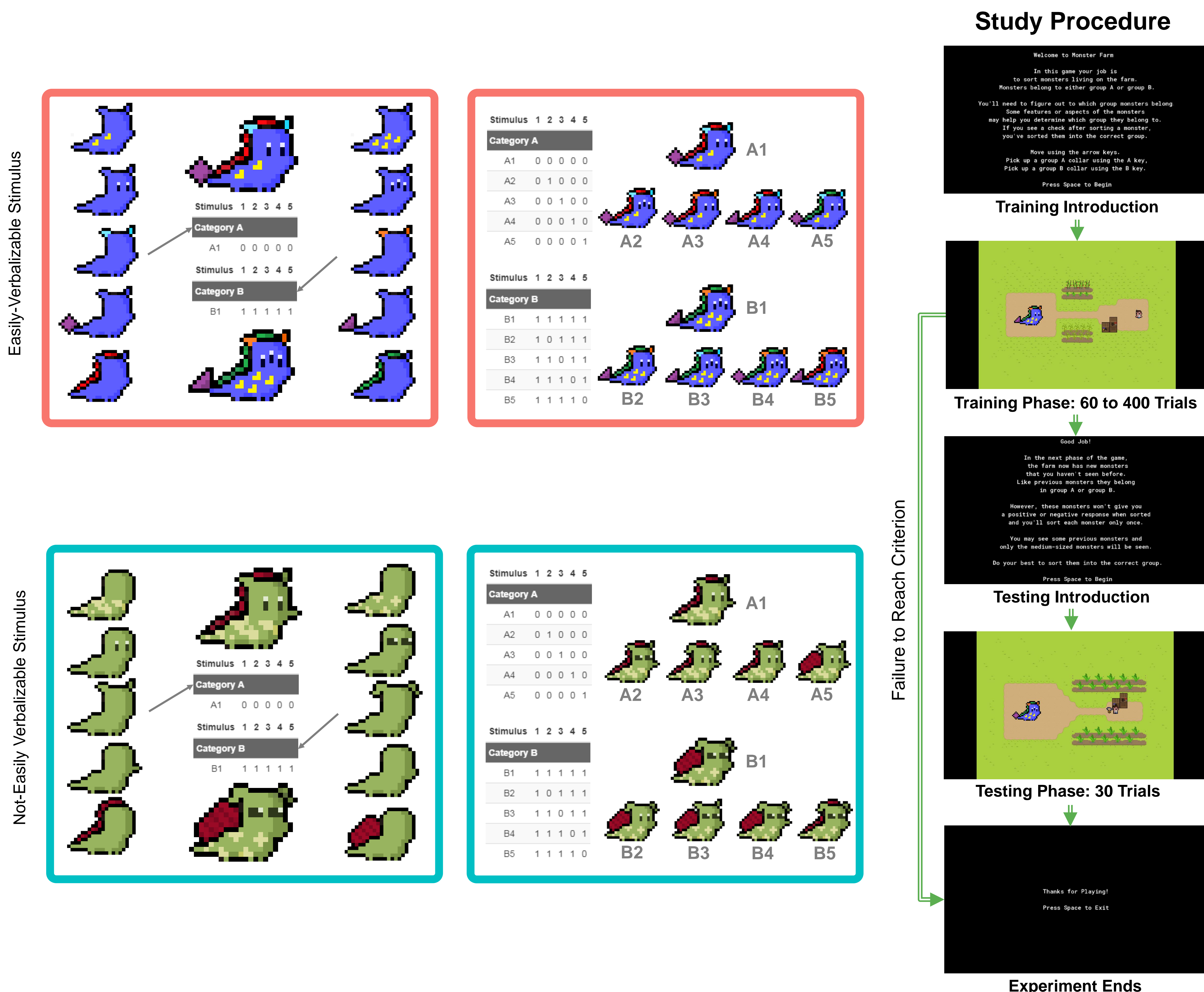
Introduction and Methods

Competition Between Verbal and Implicit Systems (COVIS) Theory (Ashby & Maddox, 2011)

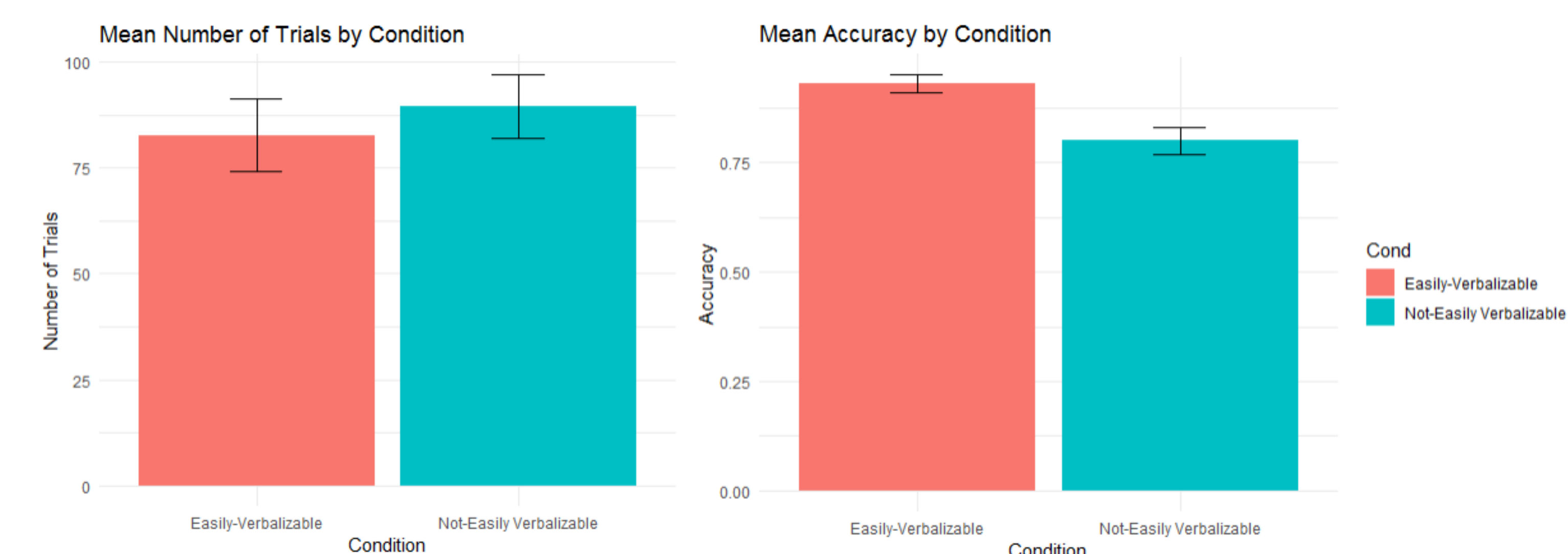
- Verbal Category Learning
 - Based on easily verbalized rules -> Make decisions based on **Criterial Attribute (CA)**
- Implicit Category Learning
 - Not based on easily verbalized rules -> Make decisions based on **Family Resemblance (FR)**

The **Verbal Category Learning System** is used during hypothesis testing when participants form verbal rules for category membership (i.e., "Red items belong in group A" or "Round items belong in group B") so we can assume being able to describe features verbally plays a role in verbal category learning

Prediction: Stimuli with features that are easy to describe verbally will facilitate CA strategy-use

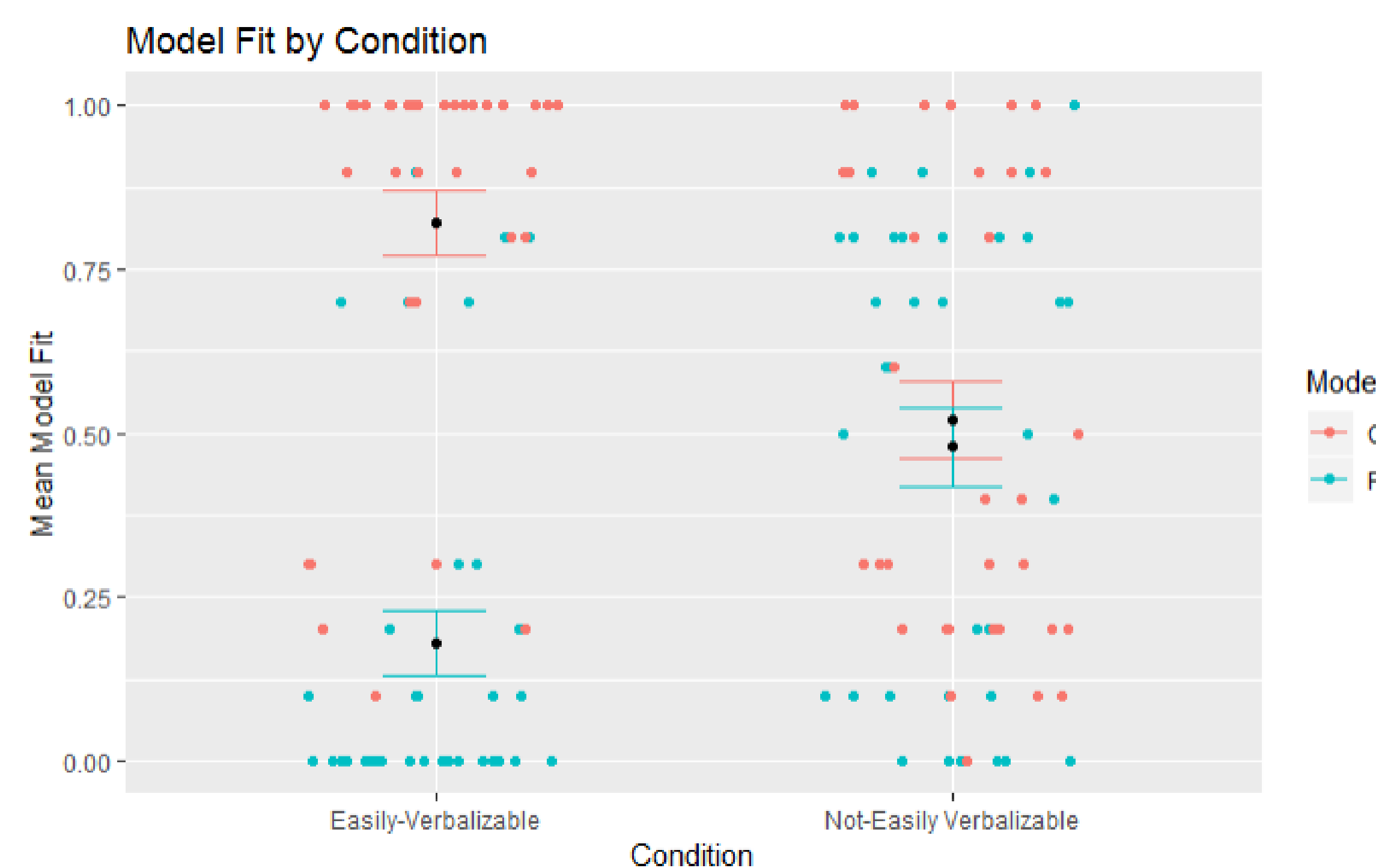


Results and Conclusions



Learning Rate T-Test
No difference in learning rate between stimulus sets
 $t(64.56) = -0.60, p = .550$

Accuracy T-Test
Higher accuracy for easily-verbalizable stimulus
 $t(58.47) = 3.50, p = .001$



Model Fit by Condition ANOVA

For easily-verbalizable stimulus, CA strategies were more common
No strategy preference for not-easily verbalizable stimulus

Condition: $F(1, 66) < .01, p > .999$ **Model:** $F(1, 66) = 19.12, p < .001$ **Interaction:** $F(1, 66) = 14.78, p < .001$

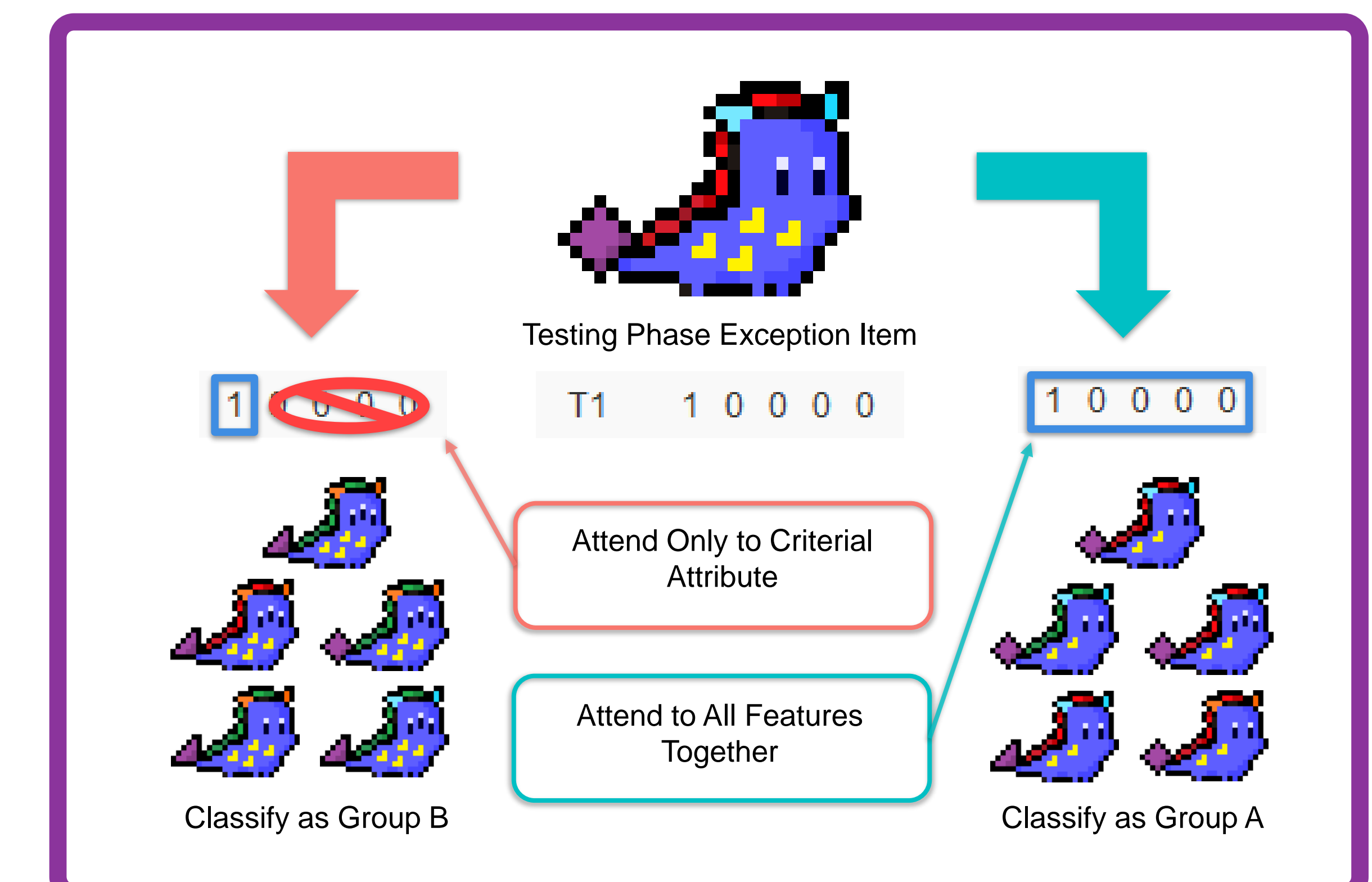
Future Directions

- Replication and Publication
 - Control for colour-blindness (red/green contrast in stimulus set)
 - Collect additional demographic information
- Recognition Task for Feature Verbalizability
 - Accounting for higher accuracy in the easily-verbalizable condition

Strategy Modelling

	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	Model Fit Score
CA	B	B	B	B	B	A	A	A	A	A	0.7
FR	A	A	A	A	A	B	B	B	B	B	0.3
	B	B	A	B	B	A	A	A	B	B	

- Table shows an example of how model fit scores were calculated with fictitious participant responses
- Participants responses were compared to modelled responses based on using CA or FR strategies only to determine responses
- Model fits were used for the ANOVA analysis



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